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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,082	08/29/2001	Gregory L. Norden	7784-000203	6170

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EXAMINER	
OSBORNE, LUKE R	
ART UNIT	**PAPER NUMBER**
2123	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/942,082	NORDEN ET AL.	
	Examiner	Art Unit	
	Luke Osborne	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, and 4-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Status

1. Claims 1, 2, and 4-33 have been presented for reconsideration.

Claims 1, 2, and 4-33 are rejected.

Applicants' arguments submitted 11/13/2006 have been fully considered, Examiners response is as follows.

Claim Objections

2. Examiner acknowledges the amendment to claims 4-6, and 8. Consequently the objection is withdrawn.

Response to Arguments

3. The following is the Examiners response to arguments laid out in the response dated 11/13/2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinschnitz (5,253,184) of record in view of "Triple-Triple Redundant 777 Primary Flight Computer" by Y.C. (Bob) Yeh, 1996, hereinafter "Yeh".

Regarding claim 1 Kleinschnitz teaches a computer-implemented method for servicing a platform [customer equipment 40]. See figures 1, 7 and the corresponding portions of Kleinschnitz's specification for this disclosure. In particular, Kleinschnitz teaches A computer-implemented method for servicing a platform [Kleinschnitz: customer equipment 40], the method comprising the steps of:

- providing a knowledge base of reusable solutions for the platform [Kleinschnitz: Figure 1 illustrates in block diagram form the hierarchical distributed knowledge based machine initiated maintenance system (Figure 1, item 1: Central Expert System)];

– storing the knowledge base in a computer-based medium, the computer-based medium being accessible to a plurality of users [Kleinschnitz: Local maintenance system 10];

– receiving an incoming message from at least one specific user of the plurality of users, where the incoming message characterizes a platform technical issue relating to the platform [Kleinschnitz: The failure report provides concise summary failure data from the original occurrence as well as information indicative of each recovery step taken during an attempt for customer equipment 40 to recover from the failure (Column 6, lines 60-64)]; and

– generating an outgoing message in accordance with one or more of the reusable solutions in the knowledge base in response to the incoming message such that the outgoing message addresses the platform technical issue; and

> [Kleinschnitz: Where one or more Suspect FRUs are indicated in the MIM, the craftsperson invokes an interactive dialogue called Guided FRU Replacement 307, or GFR. The craftsperson uses GFR 307 to select 409 the composite failure event identity for which the MIM was sent, and selects the FRU to be replaced from the SFL that is continued in the composite failure event. (Column 11, line 5-22)]

– sending said outgoing message to the at least one specific user from the computer-based medium [Kleinschnitz: Machine initiated maintenance transceiver 15 functions to establish and maintain a data communication connection with the central maintenance system 1 via the associated communication lines 50 (Column 5, lines 19-23)].

Kleinschnitz does not teach wherein customer equipment 40 is a mobile platform. However, Kleinschnitz does teach in Columns 3-5 that the

> "Customer equipment 40 is typically constructed of a plurality of field replaceable units (FRU) 70-75, each of which performs a designated, well defined function. Additional elements may be provided in customer equipment 40 that are not field replaceable units, in that a craftsperson can not simply repair or replace these elements. However, for the purpose of simplicity of description, all functional elements contained within customer equipment 40 are designated as field replaceable units whether indeed they can be physically replaced by a craftsperson in the traditional field replaceable unit sense. The physical configuration of the customer equipment 40 is not particularly pertinent to the concept of this invention and the term field replaceable unit should not be construed as any limitation on the operational abilities of the subject system."

This definition of customer equipment is not bound to a printer, but rather any equipment that is typically constructed of FRU's and non FRU's. As long as the equipment is connected to the repair system.

Yeh teaches that airplanes (mobile platform) are made up of Line Replaceable Units (LRU's) (which are equivalent to the FRU's referred to in Kleinschnitz specification) see Figure 6 LRU n on page 299, and non LRU's the control surfaces see Figure 1 page 295.

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the mobile platform as described by Yeh with the failure and system performance tracking system of Kleinschnitz.

The motivation for doing so would have been as described by Kleinschnitz on Column 1 lines 13-29. To provide inexpensive and timewise efficient repair services to sophisticated processor controlled systems.

Applicant's Argue

In particular, Kleinschnitz does not teach, suggest or disclose a computer-based medium being accessible to a plurality of users over a user interface or receiving an incoming message from at least one specific user of the plurality of users from the user

interface where the incoming message characterizes a mobile platform technical issue relating to the mobile platform.

Examiners Response

The Examiner has considered Applicant's arguments and found them unpersuasive. Applicant's seek to differentiate between the claimed "user" and the "machine" interface as cited. The Examiner has carefully reviewed the specification and found no special definition for the term "user". Further the Examiner does not consider "user" a term of art being afforded any special definition. With no special definition to the term "user" the Examiner has given the term the broadest reasonable interpretation. This interpretation of the term "user" is one that uses. This clearly includes the machines of the applied reference. With this interpretation it follows that users interact over a user interface. This allows the user to to interact with the system as provide above.

Regarding claim 2, Kleinschnitz in view of Yeh teaches the method of claim 1 further including the steps of:

- importing a first set of mobile platform data from the incoming message into one or more search roles of an inquiry;
- locating a relevant reusable solution in accordance with the inquiry; and
- exporting data from one or more solution roles of the relevant reusable solution into a second set of mobile platform data in the outgoing message

[Kleinschnitz: The above described problems are solved and a technical advance achieved in the field by the failure tracking system of the present invention which functions in a machine

> initiated maintenance environment to provide efficient and timely maintenance of customer systems. The knowledge based system provides the failure evaluation function through the use of an expert or knowledge based system that is installed in the customer system. The knowledge based system makes use of a set of rules and hypotheses to operate on performance and failure data collected from various points within the customer system to monitor the operational integrity of the customer system. This knowledge based system identifies the occurrence of a failure within the customer system and functions using its rules, hypotheses and collected performance and failure data to isolate the source of the error in the customer system and, whenever possible, "fence" or isolate the failed field replaceable unit that has caused the error.(Column 1, line 65 – Column 2, line 31)].

Regarding claim 11, Kleinschnitz in view of Yeh teaches the method of claim 2 further including the step of importing a portion of the first set of mobile platform related data into a goal field of the inquiry such that the goal field defines a goal of the technical issue [Kleinschnitz: In this description the term failure domain is used and this term denotes the boundaries within which a given failure operates. The failure domain includes a number of aspects: physical, temporal, severity, persistence, threshold, etc.(Column 6, lines 31-34)].

Regarding claim 12, Kleinschnitz in view of Yeh teaches the method of claim 2 further including the step of importing a portion of the first set of mobile platform related data into a fact field of the inquiry such that the fact field defines a fact of the mobile platform technical issue [Kleinschnitz: In this description the term failure domain is used and this term denotes the boundaries within which a given failure operates. The failure domain includes a number of aspects: physical, temporal, severity, persistence, threshold, etc.(Column 6, lines 31-34)].

Regarding claim 13, Kleinschnitz in view of Yeh teaches the method of claim 2 further including the step of importing a portion of the first set of mobile platform related data into a symptom field of the inquiry such that the symptom field defines a symptom of the mobile platform technical issue [Kleinschnitz: In this description the term failure domain is used and this term denotes the boundaries within which a given failure operates. The failure domain includes a number of aspects: physical, temporal, severity, persistence, threshold, etc.(Column 6, lines 31-34)].

Regarding claim 14, Kleinschnitz in view of Yeh teaches the method of claim 2 further including the step of importing a portion of the first set of mobile platform related data into a change field of the inquiry such that the change field defines a change of the mobile platform technical issue [Kleinschnitz: In this description the term failure domain is used and this term denotes the boundaries within which a given failure operates. The failure domain includes a number of aspects: physical, temporal, severity, persistence, threshold, etc.(Column 6, lines 31-34)].

Regarding claim 15, Kleinschnitz in view of Yeh teaches the method of claim 2 further including the step of exporting data from a cause field into the second set of mobile platform related data such that the second set of mobile platform related data defines a cause of the mobile platform technical issue [Kleinschnitz: The craftsperson uses GFR 307 to select 409 the composite failure event identity for which the MIM was

sent, and selects the FRU to be replaced from the SFL that is continued in the composite failure event (Column 11, lines 8-11)].

Regarding claim 16, Kleinschnitz in view of Yeh teaches the method of claim 2 further including the step of exporting data from a fix field into the second set of mobile platform related data such that the second set of mobile platform related data defines a fix of the mobile platform technical issue [Kleinschnitz: The craftsperson uses GFR 307 to select 409 the composite failure event identity for which the MIM was sent, and selects the FRU to be replaced from the SFL that is continued in the composite failure event (Column 11, lines 8-11)].

Regarding claim 17, Kleinschnitz teaches in view of Yeh the method of claim 1 further including the step of maintaining the knowledge base for a plurality of mobile platforms [Kleinschnitz: A plurality of customer equipment 40-42 are illustrated connected to a central maintenance system 1 via corresponding communication links 50-53 (Column 3, lines 12-16)].

6. Claims 4-10, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinschnitz in view of Yeh.

Claims 4-10 refer to the security validation and authoring access to the knowledge system by authorized individuals.

Kleinschnitz does not expressly teach that the central engineering expertise personnel are authorized updaters of the knowledge base.

Examiner takes official notice that limiting authoring access to the knowledge base or expert system to "experts" was well known in the art at the time of applicant's invention. The Examiner presents Sandhu below, which discloses the concept of role based access control. Role based access control as disclosed teaches the limiting of access including an edit permission to the role of people authorized i.e. experts.

At the time of the invention it would have been obvious to a person having ordinary skill in the art to limit authoring access as known in the art and described above to the knowledge system of Kleinschnitz.

The motivation for doing so would have been to keep the expert system knowledge filled with expert knowledge.

Claim 18 is considered to be mere duplication of parts and rendered obvious from the rejection regarding claim 17. The recitation of providing reusable solutions for more than two million parts of the plurality of mobile platforms is mere duplication of parts over providing an undisclosed amount of supported hardware in Keinschnitz. Examiner states that Applicant has not shown any patentable significance in this apparent scale in size unless Applicant shows a new and unexpected result is produced from the claim as recited.

7. Claims 19-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinschnitz (5,253,184) of record, in view of Yeh of record, further in view of "Role – Based Access Control Models" by Ravi S. Sandhu et al., 1996 hereinafter "Sandhu".

Regarding claim 19 Kleinschnitz in view of Yeh, as applied to claim 1, and further in view of Sandhu teaches a computer-implemented method for updating a mobile platform-specific knowledge base. In particular, the combination of Kleinschnitz in view of Yeh teaches a computer-implemented method for updating a mobile platform-specific knowledge base the method comprising the steps of:

- storing the knowledge base in a computer-based medium, the computer-based medium being accessible to a plurality of users [Kleinschnitz: Figure 1, item 1 the central system];
- determining whether any reusable solutions of the knowledge base addresses a mobile platform technical issue regarding said mobile platform [Kleinschnitz: In some cases, however, the local expert system 11 is unable to identify the cause of the problem with any certainty (Column 11, lines 30-39)];
- receiving authoring input from the individual when none of the reusable solutions addresses the mobile platform technical issue [When the problem resolution is discovered it is conveyed in the form of new rules and hypotheses to the technical expert system 63 by the engineer (Column 11, lines 54-59)]; and
- generating a new reusable solution based on the authoring input when the individual has authoring access [Figure 7, item 701]; and

– implementing the new reusable solution into the knowledgebase [When the problem resolution is discovered it is conveyed in the form of new rules and hypotheses to the technical expert system 63 by the engineer (Column 11, lines 54-59)].

The combination of Kleinschnitz in view of Yeh does not teach, verifying whether an individual has authoring access to the knowledge base. However, Kleinschnitz does teach that not just anybody can create a solution rather it alerts central engineering expertise that human assistance is required (Column 11, lines 30-53)].

Sandhu teaches a role based access control model. The different levels of access and security are grouped into the roles of the individuals and groups.

> [Sandhu: Roles define both the specific individuals allowed to access resources and the extent to which resources are accessed. For example, an operator role might access all computer resources but not change access permissions; a security-officer role might change permissions but have no access to resources; and an auditor role might access only audit trails. (Page 38, 4th paragraph)]

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the mobile platform solution database of the combination of Kleinschnitz in view of Yeh with the role based access of Sandhu. The combination would verify the individuals at central engineering, or the manufacturer as the case may be as the experts to provide new solutions in the database.

The motivation for doing so is found in Sandhu on pages 38-40. In sections labeled needs addressed by roles, and reasons to use RBAC. As found in these sections it makes it easier and more effective for the security system to establish who is

and who is not able to access the database and in what method of access the particular individual is granted.

Claims 20-26 refer to similar limitations of claims 4-10 in light of claim 19, thus are rejected for the same reasons.

Claim 27 contains similar limitations as claim 19, thus is rejected for similar reasons.

Claims 28-31 recites the limitations of claims 11-14 in light of claim 27, thus are rejected for the same reasons as claims 11-14.

Claims 32 and 33 contain similar limitations as claim 27, thus is rejected for the same reasons.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke Osborne whose telephone number is (571) 272-4027. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LRO

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